

AMENDMENTS TO THE SPECIFICATION

Please amend the specification, as follows:

Replace paragraph [0044] with the following amended paragraph [0044]:

FIG. 12 is a detailed block diagram of the direct channel state measurement ~~apparatus~~ unit 810 of FIG. 9 in accordance with an exemplary embodiment of the present invention. Referring to FIG. 12, a first de-mapping and pilot insertion unit 811 of the direct channel state measurement ~~apparatus~~ unit 810 may insert a first given pilot into the complex symbol stream I. The first de-mapping and pilot insertion unit 811 then performs de-mapping on the complex symbol stream I. A first subtraction unit 812 subtracts the de-mapped complex symbol stream I from the complex symbol stream I and outputs a first subtraction result. A first squaring unit 813 squares a signal output from the first subtraction unit 812 and outputs the squared signal.

Replace paragraph [0045] with the following amended paragraph [0045]:

As shown in FIG. 12, the direct channel state measurement ~~apparatus~~ unit 810 may include a second de-mapping and pilot insertion unit 814 for inserting a second given pilot into the complex symbol stream Q, and for de-mapping the complex symbol stream Q. A second subtraction unit 815 subtracts the de-mapped complex symbol stream Q from the complex symbol stream Q and outputs a second subtraction result to a second squaring unit 816. The second squaring unit 816 squares the second subtraction result and outputs a squared signal.

Replace paragraph [0047] with the following amended paragraph [0047]:

Referring again to FIG. 12, a summation unit 817 sums signals output from the first squaring unit 813 and the second squaring unit 816. An averaging unit 818 of the direct channel state measurement ~~apparatus~~ unit 810 averages a signal output from the summation unit 817 during a current symbol duration, and a signal output from the summation unit 817 during a previous symbol duration, and outputs the error signal Err^2 .

Replace paragraph [0048] with the following amended paragraph [0048]:

The direct channel state measurement ~~apparatus~~ unit 810 may also include a non-uniform quantization unit 819. The non-uniform quantization unit 819 quantizes the error signal Err^2 received from averaging unit 818 to generate the direct channel state information CSI1 by inverting the error signal Err^2 . This may be done using an inverse, non-uniform transfer function, for example, so as to output the direct channel state information CSI1.

Replace paragraph [0066] with the following amended paragraph [0066]:

As described above, the apparatus according to the exemplary embodiments of the present invention selects one of the direct channel state information CSI1 output from the direct channel state measurement unit 810 and the indirect channel state information CSI2 output from the ~~indirect channel state measurement~~ uniform quantization unit 850, based on the channel state selection control signal CSS output from the co-channel interference detector 820. Thus, since

the channel state measurement apparatus has the advantages of both the direct method of channel state measurement and the indirect method of channel state measurement, the performance of a receiver (such as a DVB-T receiver) employing the apparatus can be improved for addressing channels having frequency selective interference, i.e., co-channel interference.